

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
13 December 2001 (13.12.2001)

PCT

(10) International Publication Number
WO 01/94675 A3

(51) International Patent Classification⁷: D06F 43/00,
D06L 1/00

SAKKAB, Nabil, Yaqub; 11279 Ridge Circle, Cincinnati, OH 45249 (US).

(21) International Application Number: PCT/US01/18266

(74) Agents: REED, T., David et al.; The Procter & Gamble Company, 5299 Spring Grove Avenue, Cincinnati, OH 45217-1087 (US).

(22) International Filing Date: 5 June 2001 (05.06.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/209,468 5 June 2000 (05.06.2000) US
09/849,893 4 May 2001 (04.05.2001) US

(71) Applicant: THE PROCTER & GAMBLE COMPANY
[US/US]; One Procter & Gamble Plaza, Cincinnati, OH 45202 (US).

(72) Inventors: SEVERNS, John, Cort; 7168 Basswood Drive, West Chester, OH 45069 (US). HARTMAN, Frederick, Anthony; 10347 Deerfield Road, Cincinnati, OH 45242 (US). BURKETTE-STLAURENT, James, Charles, Theo; 11477 Gideon Lane, Cincinnati, OH 45249 (US). NOYES, Anna, Vadimovna; 6493 Kristine Drive, Hamilton, OH 45011 (US). RADOMYSELSKI, Arseni, V.; 6493 Kristine Drive, Hamilton, OH 45011 (US). FRANCE, Paul, Amaat, Raymond; 5240 Barkwood Drive, West Chester, OH 45069 (US). SCHEIBEL, Jeffrey, John; 6651 Miami Trails Drive, Loveland, OH 45140 (US). THOEN, Christiaan, Arthur, Jacques, Kamiel; 8624 Beckett Pointe Drive, West Chester, OH 45069 (US). DEAK, John, Christopher; 7311 Kingswood Drive, West Chester, OH 45069 (US). VINSON, Phillip, Kyle; 5803 Windermere Lane, Fairfield, OH 45014 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AT (utility model), AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ (utility model), DE, DE (utility model), DK, DK (utility model), DM, DZ, EE, EE (utility model), ES, FI, FI (utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
28 March 2002

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 01/94675 A3

(54) Title: WASHING APPARATUS

(57) Abstract: The present invention relates to an apparatus for treating, refreshing or cleaning fabric articles, especially articles of clothing, linen and drapery.

PCT/US 01/18266

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 D06F43/00 D06L1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 D06F D06L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 063 135 A (BERNDT DIETER R ET AL) 16 May 2000 (2000-05-16) column 8, line 3 - line 53; claim 1	1-7,9, 10, 13-15,18
A	DE 198 10 907 A (MAAS RUTH) 16 September 1999 (1999-09-16) claims 1,2	8,16
A	US 5 046 337 A (RO ABRAHAM E) 10 September 1991 (1991-09-10) claim 1; figure 1	2,10
A	EP 0 410 068 A (I L S A SRL) 30 January 1991 (1991-01-30) claim 1	10,11

-/--

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

8 January 2002

Date of mailing of the international search report

15/01/2002

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040. Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer _____

D'Souza, J

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/18266

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 014, no. 265 (C-0726), 8 June 1990 (1990-06-08) & JP 02 077292 A (MITSUBISHI HEAVY IND LTD; OTHERS: 01), 16 March 1990 (1990-03-16) abstract</p> <p>-----</p>	12, 18

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/18266

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 6063135	A	16-05-2000	US 5942007 A	24-08-1999
			US 5865852 A	02-02-1999
			AU 4993599 A	07-02-2000
			AU 5101799 A	07-02-2000
			BR 9912088 A	10-04-2001
			BR 9912811 A	02-05-2001
			CN 1309733 T	22-08-2001
			CN 1309734 T	22-08-2001
			EP 1084289 A1	21-03-2001
			EP 1092056 A1	18-04-2001
			NO 20010231 A	14-03-2001
			NO 20010232 A	14-03-2001
			WO 0004221 A1	27-01-2000
			WO 0004222 A1	27-01-2000
			US 6042617 A	28-03-2000
			US 6056789 A	02-05-2000
			US 6042618 A	28-03-2000
			US 6086635 A	11-07-2000
			US 6059845 A	09-05-2000
DE 19810907	A	16-09-1999	DE 19810907 A1	16-09-1999
US 5046337	A	10-09-1991	NONE	
EP 0410068	A	30-01-1991	EP 0410068 A1	30-01-1991
			AT 122740 T	15-06-1995
			DE 68922728 D1	22-06-1995
			DE 68922728 T2	23-11-1995
			US 4991312 A	12-02-1991
JP 02077292	A	16-03-1990	DE 68928139 D1	24-07-1997
			DE 68928139 T2	04-12-1997
			DE 68928640 D1	14-05-1998
			DE 68928640 T2	11-03-1999
			DE 68929057 D1	23-09-1999
			DE 68929057 T2	03-02-2000
			DE 68929146 D1	02-03-2000
			DE 68929146 T2	06-07-2000
			EP 0343096 A2	23-11-1989
			EP 0548063 A2	23-06-1993
			EP 0550423 A2	07-07-1993
			EP 0548064 A2	23-06-1993
			KR 9204722 B1	15-06-1992
			KR 9209545 B1	19-10-1992
			US 5050259 A	24-09-1991
			US 5107606 A	28-04-1992
			US 5212969 A	25-05-1993